



10/634897

Docket No.: M4065.0700/P700-A
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of:
Terry L. Gilton et al.

Patent No.: 6,812,087

Issued: November 2, 2004

For: METHODS OF FORMING NON-VOLATILE RESISTANCE VARIABLE DEVICES AND METHODS OF FORMING SILVER SELENIDE COMPRISING STRUCTURES

Certificate
FEB 01 2005
of Correction

**REQUEST FOR CERTIFICATE OF CORRECTION
PURSUANT TO 37 CFR 1.322**

MS Post Issue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted typographical errors which should be corrected.

On Page 1

In (75) Inventors: "Giltom" should read --Gilton--

In (56) U.S. PATENT DOCUMENTS: insert
6,423,628 B1 7/2002 Li et al.
6,473,332 10/2002 Ignatiev et al.

OTHER PUBLICATIONS:

"U.S. patent application Ser. No. 6,418,049, Le et al., filed Jul. 23, 2002." should read --U.S. patent application Ser. No. 10/232,757, Le et al. --

On Page 3 OTHER PUBLICATIONS:

Column 1, Ref. #8 "Miyatani, Electrical properties of Ag₂Se, —J. Phys. Soc. Japan, p. 317, 1958." should read --Miyatani, Electrical Properties of Ag₂Se, 13 J. Phys. Soc. Japan, p. 317, 1958.--

Column 1, Ref. #11 "Safran et al., "TEM study of Ag₂Se developed by the reaction of polycrystalline silver films and selenium," 317 Thin Solid Films, pp. 72-76, 1998." should read --Safran et al., "TEM study of Ag₂Se developed by the reaction of polycrystalline silver films and selenium," 317 Thin Solid Films, pp. 72-76, 1998.--

Column 1, Ref. #12 "Shimizu et al., "The Photo-Erasable Memory Switching Effect of Ag Photo-Doped d Chalcogenide Glasses," 46 BUL. CHEM. SOC. Japan, No. 12, pp. 3662-3665, December 1973." should read --Shimizu et al., "The Photo-Erasable Memory Switching Effect of Ag Photo-Doped Chalcogenide Glasses," 46 BUL. CHEM. SOC. Japan, No. 12, pp. 3662-3665, December 1973.--

On Page 4

Column 1, Ref. #4 "Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and ch mical thr sholds in IV-VI chalcogenide glasses, Phys. R v. L 62 (1989) 808-810." should read --Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett, 62 (1989) 808-810.--

Column 2, Ref. #7 "Br ss r, W.J.; Boolchand, P.; Suranyi, P.; Hernandez, J.G., Molecular phase separation and cluster siz in G S 2 glass, Hyperfine Interactions 27 (1986) 389-392." should read --Bresser, W.J.; Boolchand, P.; Suranyi, P.; Hernandez, J.G., Molecular phase separation and cluster size in GeSe₂ glass, Hyperfine Interactions 27 (1986) 389-392.--

Column 2, Ref. #8 "Cahen, D.; Gilet, J.-M.; Schmitz, C.; Ch rnyak, L.; Gartsman, K.; Jakubowicz, A., Room-Temperature, electric field induced creation of stable devices in CulnSe₂ Crystals, Science 258 (1992) 271-274." should read -- Cahen, D.; Gilet, J. M.; Schmitz, C.; Ch rnyak, L.; Gartsman, K.; Jakubowicz, A., Room-Temperature, electric field induced creation of stable devices in CulnSe₂ Crystals, Science 258 (1992) 271-274.--

On Page 5

Column 1, Ref. #2 "El Bouchairi, B.; Bernede, J.C.; Burgaud, P., Propeties of Ag_{2-x}Se_{1+x/n}-Si diodes, Thin Solid Films 110 (1983) 107-113." should read -- El Bouchairi, B.; Bernede, J.C.; Burgaud, P., Properties of Ag_{2-x}Se_{1+x/n}-Si diodes, Thin Solid Films 110 (1983) 107-113.--

On Page 5 (continued)

Column 1, Ref. #11 "Fadel, M., Switching phenomenon in evaporated S -Ge-As thin films of amorphous chalcogenide glass, Vacuum 44 (1993) 851-855." should read --Fadel, M., Switching phenomenon in evaporated Se-Ge-As thin films of amorphous chalcogenide glass, Vacuum 44 (1993) 851-855.--

Column 1, Ref. #12 "Fadel, M.; El-Shari, H.T., Electrical, thermal and optical properties of Se₇₅Ge₇Sb₁₈, Vacuum 43 (1992) 253-275." should read --Fadel, M.; El-Shari, H.T., Electrical, thermal and optical properties of Se₇₅Ge₇Sb₁₈, Vacuum 43 (1992) 253-257.--

Column 2, Ref. #11 "Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of chalcogenide semiconductors, Vacuum 45 (1994) 459-462." should read --Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of chalcogenide semiconductors, Vacuum 45 (1994) 459-462.--

Column 2, Ref. #13 "Hosokawa, S., Atomic and electronic structures of glassy Ge_xSe_{1-x} around the stiffness threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214." should read --Hosokawa, S., Atomic and electronic structures of glassy Ge_xSe_{1-x} around the stiffness threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214.--

Page 6

Column 1, Ref. #15 "Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on Se-SnO₂ system, Jap. J. Appl. Phys. 11 (1972) 1657-1662." should read --Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on Se-SnO₂ system, Jap. J. Appl. Phys. 11 (1972) 1657-1662.--

Column 2, Ref. #18 "Prakash, S.; Asokan, S.; Ghare, D.B., Easily reversible memory switching in Ge-As-Te glasses, J. Phys. D: Appl. Phys. 29 (1996) 2004-2008." should read --Prakash, S.; Asokan, S.; Ghare, D.B., Easily reversible memory switching in Ge-As-Te glasses, J. Phys. D: Appl. Phys. 29 (1996) 2004-2008.--

Column 2, Ref. #19 "Rahman, S.; Silvarama Sastry, G., Electronic switching in Ge-Bi-Se-Te glasses, Mat. Sci. and Eng. B12 (1992) 219-222." should read --Rahman, S.; Silvarama Sastry, G., Electronic switching in Ge-Bi-Se-Te glasses, Mat. Sci. and Eng. B12 (1992) 219-222.--

On Page 7

Column 1, Ref. #18 "Tregouet, Y.; Bernede, J.C., Silver movements in Ag₂Te thin films: switching and memory effects, This Solid Films 57 (1979) 49-54." should read --Tregouet, Y.; Bernede, J.C., Silver movements in Ag₂Te thin films: switching and memory effects, This Solid Films 57 (1979) 49-54.--

Column 1, Ref. #19 "Uemura, O.; Kameda, Y.; Kokai, S.; Satow, T., Thermally induced crystallization of amorphous Ge0.4Se0.6, J. Non-Cryst. Solids 117-118 (1990) 219-221." should read --Uemura, O.; Kameda, Y.; Kokai, S.; Satow, T., Thermally induced crystallization of amorphous Ge0.4Se0.6, J. Non-Cryst. Solids 117-118 (1990) 219-221.--

In the Specification:

Column 1, line 50 "-of" should read --of--

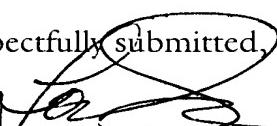
Column 8, line 59 "comprising least" should read --comprising at least--

The above errors were not in the application as filed and not in the IDS citations (copy attached) as filed by the applicant, accordingly no fee is required.

Transmitted herewith is a proposed Certificate of Correction effecting such amendment. Patentee respectfully solicits the granting of the requested Certificate of Correction.

Dated: January 24, 2005

Respectfully submitted,

By 

Thomas J. D'Amico

Registration No.: 28,371

Elizabeth Parsons

Registration No.: 52,499

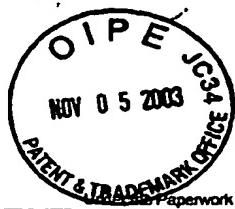
DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete if Known	
				Application Number	10/634,897
				Filing Date	August 6, 2003
				First Named Inventor	Terry L. Gilton
				Art Unit	N/A 2813
				Examiner Name	Not Yet Assigned TUAN Nguyen
Sheet	1	of	11	Attorney Docket Number	M4065.0700/P700-A

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
TN	AA	US-6,117,720	09/12/2000	Harshfield	
*	AB	US-3,450,967	08/17/1969	Tolutis	
*	AC	US-4,350,541	09/21/1982	Mizushima et al.	
*	AD	US-1,131,740	02/03/1969	Tolutis	
*	AE	US-3,622,319	11/23/1971	Sharp	
*	AF	US-3,743,847	07/03/1973	Boland	
*	AG	US-4,269,935	05/26/1981	Masters et al.	
*	AH	US-4,312,938	01/26/1982	Drexler et al.	
*	AI	US-4,320,191	03/16/1982	Yoshikawa et al.	
*	AJ	US-4,795,657	01/03/1989	Formigoni et al.	
*	AK	US-4,847,674	07/11/1989	Silwa et al.	
*	AL	US-5,177,567	01/05/1993	Kiersy et al.	
*	AM	US-5,219,788	06/15/1993	Abernathy et al.	
*	AN	US-5,726,083	03/10/1998	Takaishi	
*	AO	US-5,751,012	05/12/1998	Wolstenholme et al.	
*	AP	US-5,789,277	08/04/1998	Zahorik et al.	
*	AQ	US-5,841,150	11/24/1998	Gonzalez et al.	
*	AR	US-5,920,788	07/06/1999	Reinberg	
*	AS	US-5,998,066	12/07/1999	Block et al.	
*	AT	US-6,077,729	06/20/2000	Harshfield	
*	AU	US-6,236,059 B1	05/22/2001	Wolstenholme et al.	
*	AV	US-6,297,170 B1	10/02/2001	Gabriel et al.	
*	AW	US-6,300,684 B1	10/09/2001	Gonzalez et al.	
*	AX	US-6,316,784 B1	11/13/2001	Zahorik et al.	
*	AY	US-6,329,606 B1	12/11/2001	Freymann et al.	
*	AZ	US-6,348,365	02/19/2002	Moore et al.	
*	a	US-6,376,284 B1	04/23/2002	Gonzalez et al.	
*	b	US-6,391,688 B1	05/21/2002	Gonzalez et al.	
*	c	US-6,414,376 B1	07/02/2002	Thakur et al.	
*	d	US-6,418,049 B1	07/09/2002	Kozicki et al.	
*	e	US-6,423,628 B1	07/23/2002	Li et al.	
*	f	US-10/077,867		Campbell et al. (as filed)	
*	g	US-10/232,757		Li et al. (as filed)	
*	h	US-6,473,332	10/2002	Ignatiev et al.	
*	i	US-6,469,364	10/2002	Kozicki	
*	j	US-2002/0168820 App.	11/2002	Kozicki	
*	k	US-4,316,946	1/1982	Masters, et al.	
*	l	US-4,419,421	12/1983	Wichelhaus, et al.	
*	m	US-6,487,106	11/26/2002	Kozicki	
*	n	US-5,314,772	5/24/1994	Kozicki	
*	o	US-2002/0190350 APP	12/19/2002	Kozicki	



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/B/PTO				Complete if Known	
				Application Number	10/634,897
				Filing Date	August 6, 2003
				First Named Inventor	Terry L. Gilton
				Art Unit	N/A 2813
				Examiner Name	Not Yet Assigned
Sheet	3	of	11	Attorney Docket Number	M4065.0700/P700-A

* <i>TV</i>	A29	US-5,512,328	04/1996	Yoshimura et al.	
* <i>TV</i>	A30	US-6,117,720	09/2000	Harshfield	

Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Country Code ³	Number ⁴ Kind Code ⁵ (if known)				
<i>TV</i>	BA	WO	97/48032	12/18/1997	Kozicki et al.		
<i>TV</i>	BB	WO	99/28914	06/10/1999	Kozicki et al.		
<i>TV</i>	BC	JP	56126916A	05/10/1981	Akira et al.		
<i>TV</i>	BD	00/48196 A1		17/09/2000	WIPO (Kozicki et al.)		
<i>TV</i>	BE	02/21542 A1		13/03/2002	WIPO (Kozicki et al.)		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				
<i>TV</i>	CA	G. SAFRAN, "Development and properties of single-crystal silver selenide layers," Thin Solid Films, 215 (1992) 147-151.				
*	CB	DAS et al., "Theory of the characteristic curves of the silver chalcogenide glass inorganic photoresists," 54 APPL. PHYS. LETT., No. 18, pp. 1745-1747, May 1989.				
*	CC	HELBERT et al., "Intralevel hybrid resist process with submicron capability," SPIE Vol. 333, SUBMICRON LITHOGRAPHY, pp. 24-29 (1982).				
*	CD	HILT, DISSERTATION: "Materials Characterization of Silver Chalcogenide Programmable Metallization Cells," Arizona State University, pp. title page-114, UMI Company, May 1999.				
*	CE	HOLMQUIST et al., "Reaction and Diffusion in Silver-Arsenic Chalcogenide Glass Systems," 62 J. AMER. CERAMIC SOC., Nos. 3-4, pp. 183-188 (Mar.-Apr. 1979).				
*	CF	HUGGETT et al., "Development of silver sensitized germanium selenide photoresist by reactive sputter etching in SF," 42 APPL. PHYS. LETT., No. 7, pp. 592-594, April 1983.				
*	CG	KAWAGUCHI et al., "Mechanism of photosurface deposition," 164-166, J. NON-CRYST. SOLIDS, pp. 1231-1234 (1993).				
*	CH	MCHARDY et al., "The dissolution of metals in amorphous chalcogenides and the effects of electron and ultraviolet radiation," 20 J. PHYS. C: SOLID STATE PHYS., pp. 4055-4075, 1987.				
*	CI	MIYATANI, "Electrical Properties of Ag ₂ Se, 13 J. Phys. Soc. Japan, p. 317, 1958.				
*	CJ	MIZUSAKI et al., "Kinetic Studies on the Selenization of Silver," 47 BUL. CHEM. SOC. Japan, No. 11, pp. 2851-2855, November 1974.				
*	CK	OWENS et al., "Metal-Chalcogenide Photoresists for High Resolution Lithography and Sub-Micron Structures," NANOSTRUCTURES PHYSICS AND FABRICATION, pp. 447-451, Academic Press, 1989.				
*	CL	SAFRAN et al., "TEM study of Ag ₂ Se developed by the reaction of polycrystalline silver films and selenium," 317 THIN SOLID FILMS, pp. 72-76, 1998.				
* <i>TV</i>	CM	SHIMIZU et al., "The Photo-Erasable Memory Switching Effect of Ag Photo-Doped Chalcogenide Glasses," 46 BUL. CHEM. SOC. Japan, No. 12, pp. 3662-3665, December 1973.				



PTO/SB/08a/b (08-03)

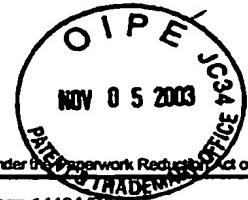
Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/A/B/PTO

Complete If Known

INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/634,897
				Filing Date	August 6, 2003
				First Named Inventor	Terry L. Gilton
				Art Unit	T/A 2813
				Examiner Name	Not Yet Assigned
Sheet	4	of	11	Attorney Docket Number	M4065.0700/P700-A

✓	CN	SOMOGYI et al., "Temperature Dependence of the Carrier Mobility in Ag ₂ Se Layers Grown on NaCl and SiO _x Substrates, 74 ACTA PHYSICA HUNGARICA, No. 3, pp. 243-255, 1994.
*	CO	TAI et al., "Multilevel Ge-Se film based resist systems," SPIE Vol. 333 SUBMICRON LITHOGRAPHY, pp. 32-39, March 1982.
*	CP	TAI et al., "Submicron optical lithography using an inorganic resist/polymer bilevel scheme," 17 J. Vac. Sci. Technol., No. 5, pp. 1169-1176, Sept/Oct. 1980.
*	CQ	WEST, DISSERTATION: "Electrically Erasable Non-Volatile Memory Via electrochemical Deposition of Multifractal Aggregates," Arizona State University, pp. title page-168, UMI Co., May 1998.
*	CR	WEST et al., "Equivalent Circuit Modeling of the Ag/As _{0.24} Se _{0.36} Ag _{0.40} /Ag System Prepared by Photodissolution of Ag, 145 J. Electrochem. Soc., No. 9, pp. 2971-2974, September 1998.
*	CS	YOSHIKAWA et al., "A new inorganic electron resist of high contrast," 31 APPL. PHYS. LETT., No. 3, pp. 161-163, August 1977.
*	CT	YOSHIKAWA et al., "Dry development of Se-Ge Inorganic photoresist," 36 APPL. PHYS. LETT., No. 1, pp. 107-109, January 1980.
*	CU	KOZICKI, et al., "Applications of Programmable Resistance Changes in Metal-doped Chalcogenides", Proceedings of the 1999 Symposium on Solid State Ionic Devices, Editors - F D Wachsmann et al., The Electrochemical Society, Inc., 1 – 12, 1999.
*	CV	HELBERT et al., "Intralevel hybrid resist process with submicron capability," SPIE Vol. 333 SUBMICRON LITHOGRAPHY, pp. 24-29 (1982).
*	CW	M.N. KOZICKI and M. MITKOVA, "Silver incorporation in thin films of selenium rich Ge-Se glasses," Proceedings of the XIX International Congress on Glass, Society for Glass Technology, 226-227 (2001).
*	CX	KOZICKI, et al., "Nanoscale phase separation in Ag-Ge-Se glasses," Microelectronic Engineering, vol. 63/1-3, 155-159 (2002).
*	CY	KOZICKI, et al., "Nanoscale effects in devices based on chalcogenide solid solutions," Superlattices and Microstructures, 27, 485-488 (2000).
*	CZ	Abdel-Ali, A.; Elshafie,A.; Elhawary, M.M., DC electric-field effect in bulk and thin-film Ge5As38Te57 chalcogenide glass, Vacuum 59 (2000) 845-853.
*	C0	Adler, D.; Moss, S.C., Amorphous memories and bistable switches, J. Vac. Sci. Technol. 9 (1972) 1182-1189.
*	C1	Adler, D.; Henisch, H.K.; Mott, S.N., The mechanism of threshold switching in amorphous alloys, Rev. Mod. Phys. 50 (1978) 209-220.
*	C2	Afifi, M.A.; Labib, H.H.; El-Fazary, M.H.; Fadel, M., Electrical and thermal properties of chalcogenide glass system Se75Ge25-xSbx, Appl. Phys. A 55 (1992) 167-169.
*	C3	Afifi,M.A.; Labib, H.H.; Fouad, S.S.; El-Shazly, A.A., Electrical & thermal conductivity of the amorphous semiconductor Ge _x Se _{1-x} , Egypt, J. Phys. 17 (1986) 335-342.
*	C4	Alekperova, Sh.M.; Gadzhieva, G.S., Current-Voltage characteristics of Ag ₂ Se single crystal near the phase transition, Inorganic Materials 23 (1987) 137-139.
*	C5	Aleksiejunas, A.; Cesnys, A., Switching phenomenon and memory effect in thin-film heterojunction of polycrystalline selenium-silver selenide, Phys. Stat. Sol. (a) 19 (1973) K169-K171.
*	C6	Angell, C.A., Mobile ions in amorphous solids, Annu. Rev. Phys. Chem. 43 (1992) 693-717.
*	C7	Aniya, M., Average electronegativity, medium-range-order, and ionic conductivity in superionic glasses, Solid state Ionics 136-137 (2000) 1085-1089.
*	C8	Asahara, Y.; Izumitani, T., Voltage controlled switching in Cu-As-Se compositions, J. Non-Cryst. Solids 11 (1972) 97-104.
*	C9	Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett. 62 (1989) 808-810
✓	C10	Baranovskii, S.D.; Cordes, H., On the conduction mechanism in ionic glasses, J. Chem. Phys. 111 (1999) 7546-7557.



Substitute for form 1449A/B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	5	of	11	Attorney Docket Number
				M4065.0700/P700-A

*	C11	Belin, R.; Taillades, G.; Pradel, A.; Ribes, M., Ion dynamics in superionic chalcogenide glasses: complete conductivity spectra, Solid state Ionics 136-137 (2000) 1025-1029.
*	C12	Belin, R.; Zerouale, A.; Pradel, A.; Ribes, M., Ion dynamics in the argyrodite compound Ag7GeSe5I: non-Arrhenius behavior and complete conductivity spectra, Solid State Ionics 143 (2001) 445-455.
*	C13	Benmore, C.J.; Salmon, P.S., Structure of fast ion conducting and semiconducting glassy chalcogenide alloys, Phys. Rev. Lett. 73 (1994) 264-267.
*	C14	Bernede, J.C., Influence du metal des electrodes sur les caracteristiques courant-tension des structures M-Ag2Se-M, Thin solid films 70 (1980) L1-L4.
*	C15	Bernede, J.C., Polarized memory switching in MIS thin films, Thin Solid Films 81 (1981) 155-160.
*	C18	Bernede, J.C., Switching and silver movements in Ag2Se thin films, Phys. Stat. Sol. (a) 57 (1980) K101-K104.
*	C17	Bernede, J.C.; Abachi, T., Differential negative resistance in metal/insulator/metal structures with an upper bilayer electrode, Thin solid films 131 (1985) L61-L64.
*	C18	Bernede, J.C.; Conan, A.; Fousenan't, E.; El Bouchairi, B.; Goureaux, G., Polarized memory switching effects in Ag2Se/Se/M thin film sandwiches, Thin solid films 97 (1982) 165-171.
*	C19	Bernade, J.C.; Khalil, A.; Kettaf, M.; Conan, A., Transition from S- to N-type differential negative resistance in Al-Al2O3-Ag2-xSe1+x thin film structures, Phys. Stat. Sol. (a) 74 (1982) 217-224.
*	C20	Bondarev, V.N.; Pikhitsa, P.V., A dendrite model of current instability in RbAg4I5, Solid State Ionics 70/71 (1994) 72-76.
*	C21	Boolchand, P., The maximum in glass transition temperature (Tg) near x=1/3 in Ge _x Se _{1-x} Glasses, Asian Journal of Physics (2000) 9, 709-72.
*	C22	Boolchand, P.; Bresser, W.J., Mobile silver ions and glass formation in solid electrolytes, Nature 410 (2001) 1070-1073.
*	C23	Boolchand, P.; Georgiev, D.G.; Goodman, B., Discovery of the Intermediate Phase in Chalcogenide Glasses, J. Optoelectronics and Advanced Materials, 3 (2001), 703
*	C24	Boolchand, P.; Selvanathan, D.; Wang, Y.; Georgiev, D.G.; Bresser, W.J., Onset of rigidity in steps in chalcogenide glasses, Properties and Applications of Amorphous Materials, M.F. Thorpe and Tichy, L. (eds.) Kluwer Academic Publishers, the Netherlands, 2001, pp. 97-132.
*	C25	Boolchand, P.; Enzweiler, R.N.; Tenhover, M., Structural ordering of evaporated amorphous chalcogenide alloy films: role of thermal annealing, Diffusion and Defect Data Vol. 53-54 (1987) 415-420.
*	C26	Boolchand, P.; Grothaus, J.; Bresser, W.J.; Suranyi, P., Structural origin of broken chemical order in a GeSe ₂ glass, Phys. Rev. B 25 (1982) 2975-2978.
*	C27	Boolchand, P.; Grothaus, J.; Phillips, J.C., Broken chemical order and phase separation in Ge _x Se _{1-x} glasses, Solid state comm. 45 (1983) 183-185.
*	C28	Boolchand, P.; Bresser, W.J., Compositional trends in glass transition temperature (Tg), network connectivity and nanoscale chemical phase separation in chalcogenides, Dept. of ECECS, Univ. Cincinnati (October 28, 1999) 45221-0030.
*	C29	Boolchand, P.; Grothaus, J., Molecular Structure of Melt-Quenched GeSe ₂ and GeS ₂ glasses compared, Proc. Int. Conf. Phys. Semicond. (Eds. Chadi and Harrison) 17 th (1985) 833-36.
*	C30	Bresser, W.; Boolchand, P.; Suranyi, P., Rigidity percolation and molecular clustering in network glasses, Phys. Rev. Lett. 56 (1986) 2493-2496.
*	C31	Bresser, W.J.; Boolchand, P.; Suranyi, P.; de Neufville, J.P., Intrinsically broken chalcogen chemical order in stoichiometric glasses, Journal de Physique 42 (1981) C4-193-C4-196.
*	C32	Bresser, W.J.; Boolchand, P.; Suranyi, P.; Hernandez, J.G., Molecular phase separation and cluster size in GeSe ₂ glass, Hyperfine Interactions 27 (1986) 389-392.
*	C33	Cahen, D.; Gilet, J.-M.; Schmitz, C.; Chemayak, L.; Gartsman, K.; Jakubowicz, A., Room-



PTO/SB/08a/b (08-03) Approved for use through 07/31/2006. OMB 0551-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete If Known	
				Application Number	10/634,897
				Filing Date	August 6, 2003
				First Named Inventor	Terry L. Gilton
				Art Unit	N/A 2813
				Examiner Name	Not Yet Assigned
Sheet	6	of	11	Attorney Docket Number	M4065.0700/P700-A

<i>TN</i>		Temperature, electric field induced creation of stable devices in CuInSe ₂ Crystals, Science 258 (1992) 271-274.	
*	C34	Chatterjee, R.; Asokan, S.; Titus, S.S.K., Current-controlled negative-resistance behavior and memory switching in bulk As-Te-Se glasses, J. Phys. D: Appl. Phys. 27 (1994) 2624-2627.	
*	C35	Chen, C.H.; Tai, K.L., Whisker growth induced by Ag photodoping in glassy Ge _x Se _{1-x} films, Appl. Phys. Lett. 37 (1980) 1075-1077.	
*	C36	Chen, G.; Cheng, J., Role of nitrogen in the crystallization of silicon nitride-doped chalcogenide glasses, J. Am. Ceram. Soc. 82 (1999) 2934-2936.	
*	C37	Chen, G.; Cheng, J.; Chen, W., Effect of Si ₃ N ₄ on chemical durability of chalcogenide glass, J. Non-Cryst. Solids 220 (1997) 249-253.	
*	C38	Cohen, M.H.; Neale, R.G.; Paskin, A., A model for an amorphous semiconductor memory device, J. Non-Cryst. Solids 8-10 (1972) 885-891.	
*	C39	Croitoru, N.; Lazarescu, M.; Popescu, C.; Telnic, M.; and Vescan, L., Ohmic and non-ohmic conduction in some amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 781-786.	
*	C40	Dalven, R.; Gill, R., Electrical properties of beta-Ag ₂ Te and beta-Ag ₂ Se from 4.2 to 300K, J. Appl. Phys. 38 (1967) 753-756.	
*	C41	Davis, E.A., Semiconductors without form, Search 1 (1970) 152-155.	
*	C42	Dearaley, G.; Stoneham, A.M.; Morgan, D.V., Electrical phenomena in amorphous oxide films, Rep. Prog. Phys. 33 (1970) 1129-1191.	
*	C43	DeJus, R.J.; Susman, S.; Volin, K.J.; Montague, D.G.; Price, D.L., Structure of Vitreous Ag-Ge-Se, J. Non-Cryst. Solids 143 (1992) 162-180.	
*	C44	den Boer, W., Threshold switching in hydrogenated amorphous silicon, Appl. Phys. Lett. 40 (1982) 812-813.	
*	C45	Drusdau, T.P.; Panckow, A.N.; Klabunde, F., The hydrogenated amorphous silicon/nanodisperse metal (SIMAL) system-Films of unique electronic properties, J. Non-Cryst. Solids 198-200 (1996) 829-832.	
*	C46	Ei Bouchairi, B.; Bernede, J.C.; Burgaud, P., Properties of Ag _{2-x} Se _{1+x} /n-Si diodes, Thin Solid Films 110 (1983) 107-113.	
*	C47	Ei Gharras, Z.; Bourahla, A.; Vautier, C., Role of photoinduced defects in amorphous Ge _x Se _{1-x} photoconductivity, J. Non-Cryst. Solids 155 (1993) 171-179.	
*	C48	Ei Ghrandi, R.; Calas, J.; Galibert, G.; Averous, M., Silver photodissolution in amorphous chalcogenide thin films, Thin Solid Films 218 (1992) 259-273.	
*	C49	Ei Ghrandi, R.; Calas, J.; Galibert, G., Ag dissolution kinetics in amorphous GeSe _{5.5} thin films from "In-situ" resistance measurements vs time, Phys. Stat. Sol. (a) 123 (1991) 451-460.	
*	C50	Ei-kady, Y.L., The threshold switching in semiconducting glass Ge ₂₁ Se ₁₇ Te ₆₂ , Indian J. Phys. 70A (1996) 507-516.	
*	C51	Elliott, S.R., A unified mechanism for metal photodissolution in amorphous chalcogenide materials, J. Non-Cryst. Solids 130 (1991) 85-97.	
*	C52	Elliott, S.R., Photodissolution of metals in chalcogenide glasses: A unified mechanism, J. Non-Cryst. Solids 137-138 (1991) 1031-1034.	
*	C53	Elsamanoudy, M.M.; Hegab, N.A.; Fadel, M., Conduction mechanism in the pre-switching state of thin films containing Te As Ge Si, Vacuum 46 (1995) 701-707.	
*	C54	Ei-Zahed, H.; El-Korashy, A., Influence of composition on the electrical and optical properties of Ge ₂₀ B ₁₀ Se _{80-x} films, Thin Solid Films 376 (2000) 236-240.	
*	C55	Fadel, M., Switching phenomenon in evaporated Se-Ge-As thin films of amorphous chalcogenide glass, Vacuum 44 (1993) 851-855.	
*	C56	Fadel, M.; El-Shair, H.T., Electrical, thermal and optical properties of Se ₇₅ Ge ₇ Sb ₁₈ , Vacuum 43 (1992) 253-257.	



Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08a/b (08-03)

Substitute for form 1449A/B/PTO				Complete if Known	
				Application Number	10/634,897
				Filing Date	August 6, 2003
				First Named Inventor	Terry L. Gilton
				Art Unit	N/A 2813
				Examiner Name	Not Yet Assigned
Sheet	7	of	11	Attorney Docket Number	M4065.0700/P700-A

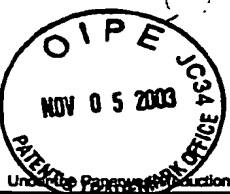
* <i>TN</i>	C57	Feng, X.; Bresser, W.J.; Boolchand, P., Direct evidence for stiffness threshold in Chalcogenide glasses, Phys. Rev. Lett. 78 (1997) 4422-4425.
*	C58	Feng, X.; Bresser, W.J.; Zhang, M.; Goodman, B.; Boolchand, P., Role of network connectivity on the elastic, plastic and thermal behavior of covalent glasses, J. Non-Cryst. Solids 222 (1997) 137-143.
*	C59	Fischer-Colbrie, A.; Blenenstock, A.; Fuoss, P.H.; Marcus, M.A., Structure and bonding in photodiffused amorphous Ag-GeSe ₂ thin films, Phys. Rev. B 38 (1988) 12388-12403.
*	C60	Fleury, G.; Hamou, A.; Viger, C.; Vautier, C., Conductivity and crystallization of amorphous selenium, Phys. Stat. Sol. (a) 64 (1981) 311-316.
*	C61	Fritzsche, H., Optical and electrical energy gaps in amorphous semiconductors, J. Non-Cryst. Solids 6 (1971) 49-71.
*	C62	Fritzsche, H., Electronic phenomena in amorphous semiconductors, Annual Review of Materials Science 2 (1972) 697-744.
*	C63	Gates, B.; Wu, Y.; Yin, Y.; Yang, P.; Xia, Y., Single-crystalline nanowires of Ag ₂ Se can be synthesized by templating against nanowires of trigonal Se, J. Am. Chem. Soc. (2001) currently ASAP.
*	C64	Gosain, D.P.; Nakamura, M.; Shimizu, T.; Suzuki, M.; Okano, S., Nonvolatile memory based on reversible phase transition phenomena in telluride glasses, Jap. J. Appl. Phys. 28 (1989) 1013-1018.
*	C65	Guin, J.-P.; Rouxel, T.; Kervyn, V.; Sangleboeuf, J.-C.; Serre, I.; Lucas, J., Indentation creep of Ge-Se chalcogenide glasses below Tg: elastic recovery and non-Newtonian flow, J. Non-Cryst. Solids 298 (2002) 260-269.
*	C66	Guin, J.-P.; Rouxel, T.; Sangleboeuf, J.-C.; Melcoet, I.; Lucas, J., Hardness, toughness, and scratchability of germanium-selenium chalcogenide glasses, J. Am. Ceram. Soc. 85 (2002) 1545-52.
*	C67	Gupta, Y.P., On electrical switching and memory effects in amorphous chalcogenides, J. Non-Cryst. Sol. 3 (1970) 148-154.
*	C68	Haberland, D.R.; Stiegler, H., New experiments on the charge-controlled switching effect in amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 408-414.
*	C69	Haifz, M.M.; Ibrahim, M.M.; Dongol, M.; Hammad, F.H., Effect of composition on the structure and electrical properties of As-Se-Cu glasses, J. Appl. Phys. 54 (1983) 1950-1954.
*	C70	Hajto, J.; Rose, M.J.; Osborne, I.S.; Snell, A.J.; Le Comber, P.G.; Owen, A.E., Quantization effects in metal/a-Si:H/metal devices, Int. J. Electronics 73 (1992) 911-913.
*	C71	Hajto, J.; Hu, J.; Snell, A.J.; Turvey, K.; Rose, M., DC and AC measurements on metal/a-Si:H/metal room temperature quantised resistance devices, J. Non-Cryst. Solids 266-269 (2000) 1058-1061.
*	C72	Hajto, J.; McAuley, B.; Snell, A.J.; Owen, A.E., Theory of room temperature quantized resistance effects in metal-a-Si:H-metal thin film structures, J. Non-Cryst. Solids 198-200 (1996) 825-828.
*	C73	Hajto, J.; Owen, A.E.; Snell, A.J.; Le Comber, P.G.; Rose, M.J., Analogue memory and ballistic electron effects in metal-amorphous silicon structures, Phil. Mag. B 63 (1991) 349-369.
*	C74	Hayashi, T.; Ono, Y.; Fukaya, M.; Kan, H., Polarized memory switching in amorphous Se film, Japan. J. Appl. Phys. 13 (1974) 1163-1164.
*	C75	Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of chalcogenide semiconductors, Vacuum 45 (1994) 459-462.
*	C76	Hong, K.S.; Speyer, R.F., Switching behavior in II-IV-V ₂ amorphous semiconductor systems, J. Non-Cryst. Solids 116 (1990) 191-200.
* <i>TN</i>	C77	Hosokawa, S., Atomic and electronic structures of glassy Ge _x Se _{1-x} around the stiffness



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0851-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449, GSA/PTO				Complete if Known	
				Application Number	10/634,897
				Filing Date	August 6, 2003
				First Named Inventor	Terry L. Gilton
				Art Unit	NIA 2813
				Examiner Name	Not Yet Assigned
Sheet	8	of	11	Attorney Docket Number	M4065.0700/P700-A

<i>TV</i>	C78	threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214.
<i>TV</i>	C78	Hu, J.; Snell, A.J.; Hajto, J.; Owen, A.E., Constant current forming in Cr/p+a-/Si:H/V thin film devices, J. Non-Cryst. Solids 227-230 (1998) 1187-1191.
*	C79	Hu, J.; Hajto, J.; Snell, A.J.; Owen, A.E.; Rose, M.J., Capacitance anomaly near the metal-non-metal transition in Cr-hydrogenated amorphous Si-V thin-film devices, Phil. Mag. B. 74 (1996) 37-50.
*	C80	Hu, J.; Snell, A.J.; Hajto, J.; Owen, A.E., Current-induced instability in Cr-p+a-Si:H-V thin film devices, Phil. Mag. B 80 (2000) 29-43.
*	C81	Iizima, S.; Sugii, M.; Kikuchi, M.; Tanaka, K., Electrical and thermal properties of semiconducting glasses As-Te-Ge, Solid State Comm. 8 (1970) 153-155.
*	C82	Ishikawa, R.; Kikuchi, M., Photovoltaic study on the photo-enhanced diffusion of Ag in amorphous films of Ge2S3, J. Non-Cryst. Solids 35 & 36 (1980) 1061-1066.
*	C83	Iyetomi, H.; Vashishta, P.; Kalla, R.K., Incipient phase separation in Ag/Ge/Se glasses: clustering of Ag atoms, J. Non-Cryst. Solids 262 (2000) 135-142.
*	C84	Jones, G.; Collins, R.A., Switching properties of thin selenium films under pulsed bias, Thin Solid Films 40 (1977) L15-L18.
*	C85	Joullie, A.M.; Marucchi, J., On the DC electrical conduction of amorphous As2Se7 before switching, Phys. Stat. Sol. (a) 13 (1972) K105-K109.
*	C86	Joullie, A.M.; Marucchi, J., Electrical properties of the amorphous alloy As2Se5, Mat. Res. Bull. 8 (1973) 433-442.
*	C87	Kaplan, T.; Adler, D., Electrothermal switching in amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 538-543.
*	C88	Kawaguchi, T.; Masui, K., Analysis of change in optical transmission spectra resulting from Ag photodoping in chalcogenide film, Jpn. J. Appl. Phys. 26 (1987) 15-21.
*	C89	Kawasaki, M.; Kawamura, J.; Nakamura, Y.; Aniya, M., Ionic conductivity of Agx(GeSe3)1-x (0<=x<=0.571) glasses, Solid state Ionics 123 (1999) 259-269.
*	C90	Kolobov, A.V., On the origin of p-type conductivity in amorphous chalcogenides, J. Non-Cryst. Solids 198-200 (1996) 728-731.
*	C91	Kolobov, A.V., Lateral diffusion of silver in vitreous chalcogenide films, J. Non-Cryst. Solids 137-138 (1991) 1027-1030.
*	C92	Korkinova, Ts.N.; Andreichin, R.E., Chalcogenide glass polarization and the type of contacts, J. Non-Cryst. Solids 194 (1996) 256-259.
*	C93	Kotkata, M.F.; Afif, M.A.; Labib, H.H.; Hegab, N.A.; Abdel-Aziz, M.M., Memory switching in amorphous GeSeTl chalcogenide semiconductor films, Thin Solid Films 240 (1994) 143-146.
*	C94	Lakshminarayan, K.N.; Srivastava, K.K.; Panwar, O.S.; Dumar, A., Amorphous semiconductor devices: memory and switching mechanism, J. Instrn Electronics & Telecom. Engrs 27 (1981) 16-19.
*	C95	Lal, M.; Goyal, N., Chemical bond approach to study the memory and threshold switching chalcogenide glasses, Indian Journal of pure & appl. phys. 29 (1991) 303-304.
*	C96	Leimer, F.; Stotzel, H.; Kottwitz, A., Isothermal electrical polarisation of amorphous GeSe films with blocking Al contacts influenced by Poole-Frenkel conduction, Phys. Stat. Sol. (a) 29 (1975) K129-K132.
*	C97	Leung, W.; Cheung, N.; Neureuther, A.R., Photoinduced diffusion of Ag in GexSe1-x glass, Appl. Phys. Lett. 46 (1985) 543-545.
*	C98	Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on Se-SnO2 system, Jap. J. Appl. Phys. 11 (1972) 1657-1662.
<i>TV</i>	C99	Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on amorphous selenium thin films, Jpn. J. Appl. Phys. 11 (1972) 606.



PTO/SB/08a/b (08-03) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/634,897
(Use as many sheets as necessary)				Filing Date	August 6, 2003
Sheet	9	of	11	First Named Inventor	Terry L. Gilton
				Art Unit	N/A - 2813
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	M4065.0700/P700-A

* <i>JN</i>	C100	Mazurier, F.; Levy, M.; Souquet, J.L., Reversible and irreversible electrical switching in TeO ₂ -V ₂ O ₅ based glasses, <i>Journal de Physique IV</i> 2 (1992) C2-185 - C2-188.
*	C101	Messoussi, R.; Bernade, J.C.; Benhida, S.; Abachi, T.; Latef, A., Electrical characterization of M/Se structures (M=Ni,Bi), <i>Mat. Chem. And Phys.</i> 28 (1991) 253-258.
*	C102	Mitkova, M.; Boolchand, P., Microscopic origin of the glass forming tendency in chalcogenides and constraint theory, <i>J. Non-Cryst. Solids</i> 240 (1998) 1-21.
*	C103	Mitkova, M.; Kozicki, M.N., Silver incorporation in Ge-Se glasses used in programmable metallization cell devices, <i>J. Non-Cryst. Solids</i> 299-302 (2002) 1023-1027.
*	C104	Miyatani, S.-y., Electronic and ionic conduction in (AgxCu _{1-x}) ₂ Se, <i>J. Phys. Soc. Japan</i> 34 (1973) 423-432.
*	C105	Miyatani, S.-y., Ionic conduction in beta-Ag ₂ Te and beta-Ag ₂ Se, <i>Journal Phys. Soc. Japan</i> 14 (1959) 996-1002.
*	C106	Mott, N.F., Conduction in glasses containing transition metal ions, <i>J. Non-Cryst. Solids</i> 1 (1968) 1-17.
*	C107	Nakayama, K.; Kitagawa, T.; Ohmura, M.; Suzuki, M., Nonvolatile memory based on phase transitions in chalcogenide thin films, <i>Jpn. J. Appl. Phys.</i> 32 (1993) 564-569.
*	C108	Nakayama, K.; Kojima, K.; Hayakawa, F.; Imai, Y.; Kitagawa, A.; Suzuki, M., Submicron nonvolatile memory cell based on reversible phase transition in chalcogenide glasses, <i>Jpn. J. Appl. Phys.</i> 39 (2000) 6157-6161.
*	C109	Nang, T.T.; Okuda, M.; Matsushita, T.; Yokota, S.; Suzuki, A., Electrical and optical parameters of GexSe _{1-x} amorphous thin films, <i>Jap. J. App. Phys.</i> 15 (1976) 849-853.
*	C110	Narayanan, R.A.; Asokan, S.; Kumar, A., Evidence concerning the effect of topology on electrical switching in chalcogenide network glasses, <i>Phys. Rev. B</i> 54 (1996) 4413-4415.
*	C111	Neale, R.G.; Aseltine, J.A., The application of amorphous materials to computer memories, <i>IEEE transactions on electron dev. Ed-20</i> (1973) 195-209.
*	C112	Ovshinsky S.R.; Fritzsche, H., Reversible structural transformations in amorphous semiconductors for memory and logic, <i>Metalurgical transactions</i> 2 (1971) 641-645.
*	C113	Ovshinsky, S.R., Reversible electrical switching phenomena in disordered structures, <i>Phys. Rev. Lett.</i> 21 (1968) 1450-1453.
*	C114	Owen, A.E.; LeComber, P.G.; Sarrabayrouse, G.; Spear, W.E., New amorphous-silicon electrically programmable nonvolatile switching device, <i>IEE Proc.</i> 129 (1982) 51-54
*	C115	Owen, A.E.; Firth, A.P.; Ewen, P.J.S., Photo-induced structural and physico-chemical changes in amorphous chalcogenide semiconductors, <i>Phil. Mag. B</i> 52 (1985) 347-362.
*	C116	Owen, A.E.; Le Comber, P.G.; Hajto, J.; Rose, M.J.; Snell, A.J., Switching in amorphous devices, <i>Int. J. Electronics</i> 73 (1992) 897-906.
*	C117	Pearson, A.D.; Miller, C.E., Filamentary conduction in semiconducting glass diodes, <i>App. Phys. Lett.</i> 14 (1969) 280-282.
*	C118	Pinto, R.; Ramanathan, K.V., Electric field induced memory switching in thin films of the chalcogenide system Ge-As-Se, <i>Appl. Phys. Lett.</i> 19 (1971) 221-223.
*	C119	Popescu, C., The effect of local non-uniformities on thermal switching and high field behavior of structures with chalcogenide glasses, <i>Solid-state electronics</i> 18 (1975) 671-681.
*	C120	Popescu, C.; Croitoru, N., The contribution of the lateral thermal instability to the switching phenomenon, <i>J. Non-Cryst. Solids</i> 8-10 (1972) 531-537.
*	C121	Popov, A.I.; Geller, I.KH.; Shemetova, V.K., Memory and threshold switching effects in amorphous selenium, <i>Phys. Stat. Sol. (a)</i> 44 (1977) K71-K73.
*	C122	Prakash, S.; Asokan, S.; Ghare, D.B., Easily reversible memory switching in Ge-As-Te glasses, <i>J. Phys. D: Appl. Phys.</i> 29 (1996) 2004-2008.
* <i>JN</i>	C123	Rahman, S.; Sivarama Sastry, G., Electronic switching in Ge-Bi-Se-Te glasses, <i>Mat. Sci. and</i>



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/634,897
(Use as many sheets as necessary)				Filing Date	August 6, 2003
Sheet	10	of	11	First Named Inventor	Terry L. Gilton
				Art Unit	N/A - 2813
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	M4065.0700/P700-A

<i>TN</i>	Eng. B12 (1992) 219-222.	
* <i>TN</i>	C124 Ramesh, K.; Asokan, S.; Sangunni, K.S.; Gopal, E.S.R., Electrical Switching in germanium telluride glasses doped with Cu and Ag, Appl. Phys. A 69 (1999) 421-425.	
*	C125 Rose, M.J.; Hajto, J.; Lecomber, P.G.; Gage, S.M.; Choi, W.K.; Snell, A.J.; Owen, A.E., Amorphous silicon analogue memory devices, J. Non-Cryst. Solids 115 (1989) 168-170.	
*	C126 Rose, M.J.; Snell, A.J.; Lecomber, P.G.; Hajto, J.; Fitzgerald, A.G.; Owen, A.E., Aspects of non-volatility in a-Si:H memory devices, Mat. Res. Soc. Symp. Proc. V 258, 1992, 1075-1080.	
*	C127 Schuocker, D.; Rieder, G., On the reliability of amorphous chalcogenide switching devices, J. Non-Cryst. Solids 29 (1978) 397-407.	
*	C128 Sharma, A.K.; Singh, B., Electrical conductivity measurements of evaporated selenium films in vacuum, Proc. Indian Natn. Sci. Acad. 46, A, (1980) 362-368.	
*	C129 Sharma, P., Structural, electrical and optical properties of silver selenide films, Ind. J. Of pure and applied phys. 35 (1997) 424-427.	
*	C130 Snell, A.J.; Lecomber, P.G.; Hajto, J.; Rose, M.J.; Owen, A.E.; Osborne, I.L., Analogue memory effects in metal/a-Si:H/metal memory devices, J. Non-Cryst. Solids 137-138 (1991) 1257-1262.	
*	C131 Snell, A.J.; Hajto, J.; Rose, M.J.; Osborne, I.L.; Holmas, A.; Owen, A.E.; Gibson, R.A.G., Analogue memory effects in metal/a-Si:H/metal thin film structures, Mat. Res. Soc. Symp. Proc. V 297, 1993, 1017-1021.	
*	C132 Steventon, A.G., Microfilaments in amorphous chalcogenide memory devices, J. Phys. D: Appl. Phys. 8 (1975) L120-L122.	
*	C133 Steventon, A.G., The switching mechanisms in amorphous chalcogenide memory devices, J. Non-Cryst. Solids 21 (1976) 319-329.	
*	C134 Stocker, H.J., Bulk and thin film switching and memory effects in semiconducting chalcogenide glasses, App. Phys. Lett. 15 (1969) 55-57.	
*	C135 Tanaka, K., Ionic and mixed conductions in Ag photodoping process, Mod. Phys. Lett B 4 (1990) 1373-1377.	
*	C136 Tanaka, K.; Izima, S.; Sugi, M.; Okada, Y.; Kikuchi, M., Thermal effects on switching phenomenon in chalcogenide amorphous semiconductors, Solid State Comm. 8 (1970) 387-389.	
*	C137 Thornburg, D.D., Memory switching in a Type I amorphous chalcogenide, J. Elect. Mat. 2 (1973) 3-15.	
*	C138 Thornburg, D.D., Memory switching in amorphous arsenic triselenide, J. Non-Cryst. Solids 11 (1972) 113-120.	
*	C139 Thornburg, D.D.; White, R.M., Electric field enhanced phase separation and memory switching in amorphous arsenic triselenide, Journal(??) (1972) 4609-4612.	
*	C140 Tichy, L.; Ticha, H., Remark on the glass-forming ability in Ge _x Se _{1-x} and As _x Se _{1-x} systems, J. Non-Cryst. Solids 261 (2000) 277-281.	
*	C141 Titus, S.S.K.; Chatterjee, R.; Asokan, S., Electrical switching and short-range order in As-Te glasses, Phys. Rev. B 48 (1993) 14650-14652.	
*	C142 Tranchant, S.; Peytavin, S.; Ribes, M.; Flank, A.M.; Dexpert, H.; Lagarde, J.P., Silver chalcogenide glasses Ag-Ge-Se: Ionic conduction and exafs structural investigation, Transport-structure relations in fast ion and mixed conductors Proceedings of the 6th Riso International symposium, 9-13 September 1985.	
*	C143 Tregouet, Y.; Bernede, J.C., Silver movements in Ag ₂ Te thin films: switching and memory effects, Thin Solid Films 57 (1979) 49-54.	
* <i>TN</i>	C144 Uemura, O.; Kameda, Y.; Kokai, S.; Satow, T., Thermally induced crystallization of amorphous Ge _{0.4} Se _{0.6} , J. Non-Cryst. Solids 117-118 (1990) 219-221.	

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT NO. : 6,812,087

DATED : November 2, 2004

INVENTOR(S) : Terry L. Gilton et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Page 1

In (75) Inventors: "Giltom" should read --Gilton--

In (56) U.S. PATENT DOCUMENTS: insert
 6,423,628 B1 7/2002 Li et al.
 6,473,332 10/2002 Ignatiev et al.

OTHER PUBLICATIONS:

"U.S. patent application Ser. No. 6,418,049, Le et al., filed Jul. 23, 2002."
 should read --U.S. patent application Ser. No. 10/232,757, Le et al.--

On Page 3 OTHER PUBLICATIONS:

Column 1, Ref. #8 "Miyatani, Electrical properties of Ag₂Se, —J. Phys. Soc. Japan, p. 317, 1958." should read --Miyatani, Electrical Properties of Ag₂Se, 13 J. Phys. Soc. Japan, p. 317, 1958.--

Column 1, Ref. #11 "Safran et al., "TEM study of Ag₂Se developed by the reaction of polycrystalline silver films and s I nium," 317 Thin Solid Films, pp. 72-76, 1998." should read --Safran et al., "TEM study of Ag₂Se developed by the reaction of polycrystalline silver films and selenium," 317 Thin Solid Films, pp. 72-76, 1998.--

On Page 4

Column 1, Ref. #4 "Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and ch mical thr sholds in IV-VI chalcogenide glasses, Phys. R v. L 62 (1989) 808-810." should read --Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett, 62 (1989) 808-810.--

Column 2, Ref. #7 "Br ss r, W.J.; Boolchand, P.; Suranyi, P.; Hernandez, J.G., Molecular phase separation and cluster siz in GS 2 glass, Hyperfine Interactions 27 (1986) 389-392." should read --Bresser, W.J.; Boolchand, P.; Suranyi, P.; Hernandez, J.G., Molecular phase separation and cluster size in GeSe₂ glass, Hyperfine Interactions 27 (1986) 389-392.--

MAILING ADDRESS OF SENDER:

Thomas J. D'Amico

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
 2101 L Street NW
 Washington, DC 20037-1526

PATENT NO. 6,812,087

No. of additional copies 0

On Page 4

Column 2, Ref. #8 "Cahen, D.; Gilet, J.-M.; Schmitz, C.; Chernyak, L.; Gartsman, K.; Jakubowicz, A., Room-Temperature, electric field induced creation of stable devices in CuInSe₂ Crystals, Science 258 (1992) 271-274." should read --Cahen, D.; Gilet, J. M.; Schmitz, C.; Chernyak, L.; Gartsman, K.; Jakubowicz, A., Room-Temperature, electric field induced creation of stable devices in CuInSe₂ Crystals, Science 258 (1992) 271-274.--

On Page 5

Column 1, Ref. #2 "El Bouchairi, B.; Bernede, J.C.; Burgaud, P., Properties of Ag_{2-x}Se_{1+x/n}-Si diodes, Thin Solid Films 110 (1983) 107-113." should read --El Bouchairi, B.; Bernede, J.C.; Burgaud, P., Properties of Ag_{2-x}Se_{1+x/n}-Si diodes, Thin Solid Films 110 (1983) 107-113.--

Column 1, Ref. #11 "Fadel, M., Switching phenomenon in evaporated S -Ge-As thin films of amorphous chalcogenid glass, Vacuum 44 (1993) 851-855." should read --Fadel, M., Switching phenomenon in evaporated Se-Ge-As thin films of amorphous chalcogenide glass, Vacuum 44 (1993) 851-855.--

Column 1, Ref. #12 "Fadel, M.; El-Shari, H.T., Electrical, thermal and optical properties of Se₇₅Ge₇Sb₁₈, Vacuum 43 (1992) 253-275." should read --Fadel, M.; El-Shari, H.T., Electrical, thermal and optical properties of Se₇₅Ge₇Sb₁₈, Vacuum 43 (1992) 253-257.--

Column 2, Ref. #11 "Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of chalcogenide semiconductors, Vacuum 45 (1994) 459-462." should read --Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of chalcogenide semiconductors, Vacuum 45 (1994) 459-462.--

Column 2, Ref. #13 "Hosokawa, S., Atomic and electronic structures of glassy Ge_xSe_{1-x} around the stiffness threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214." should read --Hosokawa, S., Atomic and electronic structures of glassy Ge_xSe_{1-x} around the stiffness threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214.--

Page 6

Column 1, Ref. #15 "Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on Se-SnO₂ system, Jap. J. Appl. Phys. 11 (1972) 1657-1662." should read --Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on Se-SnO₂ system, Jap. J. Appl. Phys. 11 (1972) 1657-1662.--

Column 2, Ref. #18 "Prakash, S.; Asokan, S.; Ghare, D.B., Easily reversible memory switching in Ge-As-Te glasses, J. Phys. D: Appl. Phys. 29 (1996) 2004-2008." should read --Prakash, S.; Asokan, S.; Ghare, D.B., Easily reversible memory switching in Ge-As-Te glasses, J. Phys. D: Appl. Phys. 29 (1996) 2004-2008.--

MAILING ADDRESS OF SENDER:
Thomas J. D'Amico
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L Street NW
Washington, DC 20037-1526

PATENT NO. 6,812,087

No. of additional copies 0

1 FEB 2005

On Page 6 (continued)

Column 2, Ref. #19 "Rahman, S.; Silvarama Sastry, G., El ctronic switching in Ge-Bi-Se-Te glasses, Mat. Sci. and Eng. B12 (1992) 219-222." should read --Rahman, S.; Silvarama Sastry, G., Electronic switching in Ge-Bi-Se-Te glasses, Mat. Sci. and Eng. B12 (1992) 219-222.--

On Page 7

Column 1, Ref. #18 "Tregouet, Y.; Bernede, J.C., Silver movements in Ag2Te thin films: switching and memory ff cts, This Solid Films 57 (1979) 49-54." should read --Tregouet, Y.; Bernede, J.C., Silver movements in Ag2Te thin films: switching and memory effects, This Solid Films 57 (1979) 49-54.--

Column 1, Ref. #19 "Uemura, O.; Kameda, Y.; Kokai, S.; Satow, T., Thermally induced crystallization f amorphous G 0.4S 0.6, J. Non-Cryst. Solids 117-118 (1990) 219-221." should read --Uemura, O.; Kameda, Y.; Kokai, S.; Satow, T., Thermally induced crystallization of amorphous Ge0.4Se0.6, J. Non-Cryst. Solids 117-118 (1990) 219-221.--

Column 1, line 50 "-of" should read --of--

Column 8, line 59 "comprising least" should read --comprising at least--

MAILING ADDRESS OF SENDER:
Thomas J. D'Amico
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L Street NW
Washington, DC 20037-1526

PATENT NO. 6,812,087

No. of additional copies 0